

New (+ Old) Media: Restoration, Preservation, Archiving & Access

@ CURRENTS: Santa Fe International New Media Festival - 2015

Report

New (+ Old) Media: Restoration, Preservation, Archiving & Access, was held on June 25-27, in Santa Fe New Mexico. The program consisted of a two day invitational Working Meeting, a Public Symposium and a Screening of selected early video/media art works, as a special program of the June 12-28, 2015 CURRENTS: Santa Fe International New Media Festival.

New (+ Old) Media: Restoration, Preservation, Archiving & Access, organized and hosted by 1st-Mile Institute's SARC (Scientists/Artists Research Collaborations) Program, brought together a diverse group of media curators, archivists, educators, conservators, technical experts, collectors, funders, artists and scientists at the forefront of efforts to address critical and timely issues regarding the ongoing life, technical processes, value and access to media art works, code, unique systems, metadata, creative intentions and our ever-emergent cultural heritage.



Program page on the CURRENTS web site:

<http://currentsnewmedia.org/events/new-old-media-restoration-preservation-archiving-access/>

The two day invitational Working Meeting, originally planned for 12-15 participants, ultimately including 35, was held at Santa Fe Art Institute, on Thursday and Friday, June 25 and 26. The meeting was facilitated by Richard Lowenberg, 1st-Mile Institute Director and early media artist.

While there was an Agenda, the meeting took a more dynamic, all-inclusive course through the topics, based upon the specific questions, needs, experiences and knowledge of the participants.

To start the meeting off, Gene Youngblood offered a brief media-society provocation, and an account of current writings. After a rapid round of introductions, program topic exchanges included the restoration and digitization of old video tapes, maintaining the integrity of analog media, preservation and upgrades of born-digital media, cross-disciplinary issues and understandings of emerging technologies and processes, evolving ethno-cultural creative works, networked relationships, open access, legal and financial matters and the convergence of the arts, sciences, tools, methods and world-views.

The Vasulka Archives served, in part, as a potential best-practices case study initiative, as a number of participants had active involvement or interest in this extensive body of works.



A Reception in the Santa Fe Art Institute outdoor courtyard, on Thursday from 4:30 - 6:00, allowed participants to meet and interact with program sponsors, some of Santa Fe's cultural community, some of the artists presenting at CURRENTS and with Mayor Javier Gonzales, who came by to welcome the visiting participants to this culturally rich, future-focused community. A group Dinner followed at Santa Fe's nearby popular East African restaurant, Jambo.

Friday's schedule was similar to the previous day, ending at 4:30, allowing participants free time to experience the CURRENTS festival or to explore Santa Fe. Dinner followed at La Choza.

A free public Symposium was held at CURRENTS, in the El Museo Cultural theater, on Saturday, June 27th, from 10:00 am. - 1:00 pm, with an audience growing to over 50 people.

Following introductory remarks, program Thank You's, Working Meeting synopsis and a listing of participants by Richard Lowenberg, a Panel of six participants took the stage for presentations and discussion of key issues, best-practices and examples. Led by Mona Jimenez, the panel also included Martina Haidvogel, Eddy Colloton, Emily Nabsny, Joey Heinen, Mark Hellar and Mira Burack, all with projected computer slides to illustrate their discussion points. The well informed audience's questions made for lively interactive discussions.

After a short break, during which the audience was urged to see the adjacent media installation, “Emblems of Ascension”, by David Stout and Cory Metcalf (Noisefold), David Stout joined Richard Rinehart on stage for a 45 minute interview/discussion, focusing on program issues, as specific to this selected media artwork.

A Lunch Reception was hosted by CURRENTS Advisor, Sandy Zane and held at Zane Bennett Contemporary Art Gallery, which showcased “Kids Team-Lab”, a Japanese educational interactive media environment, from 1:00 – 3:00.

A Screening of selected, rare early video/media works, was held in the El Museo Cultural theater, on Saturday evening, at 7:30. The 12 short clips included Gene Youngblood proposing a “National Information Utility” in 1974, the opening section of Howard Weinberg’s new production on “Nam June Paik and the TV Lab”, just digitized super-eight film by Nancy Holt of Robert Smithson and Richard Serra staking Spiral Jetty in 1970, works by the Video Freex, Hermine Freed, Peer Bode, Woody Vasulka, Paul and Marlene Kos, and Richard Lowenberg.

At 9:00 Steina presented a beautifully composed, entrancing, nearly two hour, four projector, wide-screen compilation of video-audio elements from the 1980s to the present, specially created for CURRENTS 2015, to a concluding standing ovation.

While these were a jam-packed three days, the Santa Fe setting and weather, the creative new media context of CURRENTS, group meals and evening socializing, diversity of participants, programmatic richness and informality, made this a most uniquely productive experience for all.



Mira Burack, Mona Jimenez, Martina Haidvogel, Mark Hellar, Eddy Colloton, Joey Heinen, Emily Nabsny

NEW (+ OLD) MEDIA: RESTORATION, PRESERVATION, ARCHIVING & ACCESS

WORKING MEETING NOTES

JUNE 25 – 26, 2015

(An integration of extensive notes taken by Mira Burack + Eddy Colloton, w/ light editing by RL. Topic headers are very general, as discussions ranged widely across issues and agenda items.)

DAY 1 (June 25, 2015)

Special Introductory Remarks by Gene Youngblood

Three projects – 1. Moving image/film project, 2. Media theory/activism, 3. Cultural criticism

- "Breath taking historical moment we're living through"
 - "I need help."
 - "There's great reward in that help"
- Moving image project: The diaries of George Kuchar 1985-2011, video diaries.
 - Book, DVD box set (frame by frame analysis) and an online version.
 - "The most detailed study of a filmmakers work in the history of cinema."
 - Hoping it will be a model.
- Media activism project: "The Build: leaving the culture without leaving the country".
 - "The end of mass media and the social controls that are based on it".
 - Have a greater power to destroy than to create.
 - "The audience nation otherwise known as America, must not remember... but it's no longer enforceable".
 - "To live is to archive". Subversive history is at our fingertips.
 - First step to create as well as we can destroy.
 - "Turn your back on the Koch brothers and build another world."
 - Telepresence: video conferencing, midi technology.
 - What's missing are heterotopias.
 - 3 components: a book, a documentary, archive.
- Cultural criticism:
 - Free press project, work done in Los Angeles (60s-70s)
 - Memoir "the autobiography of the image"



Introductions

Following a one hour round of rapid-fire personal introductions by everyone around the table and in the room, the discussions began.

Let's start with the BURNING QUESTIONS (Richard Lowenberg)

Cross-Disciplinary Processes

- Documentation of ideas. Scientists have a workflow to share data and do it quickly, as a community and do this regularly. Scientific community sharing data, agreed upon formats, in the face of language difference, geographic divide, etc. Why are we so behind in the arts? Need to train digital artists from the beginning. (Dale Kronkright)
 - Can you apply the standards to so many different digital artists? (Mark Hellar)
 - Train digital artists from the beginning to capture metadata and standardize workflow.



Standards

- Support any endeavor to standardize – get artists information on how to package the art.
- Feel this is possible. Standards that make sense. Not standardized, but key principles. (Jean Constant)
- What is the goal of archiving? Preservation of the work? (Sydney Davis)
- There are standards that exist, different standards. Standards are different for U.S. and Europe. (Richard Lowenberg)
- What do we do with the unique systems and materials? Digital pieces, material pieces?
- Who is the end user? How do we organize this? (Joey Heinen)
- What is the context for the work? Archaeological context, in relation to science and technology in a scholarly way, rather than experiential.
- Scientists' intentionality is quite different. Bottom line is money. Keep their real thoughts close to their chest. Art is more personal, with individual relationship to the

production of the work for itself. Financial structure of science motivates standardization not true in the the "art world." (Fred Unterseer)

- Importance of personal rapport in any exchange. Observed collaborative nature between science and art. (Richard Lowenberg)

Archiving

- Teaching the archivist/artists relationship. Standards for a relationship between artists and conservationists. – awareness and funding (Elizabeth Ehrnst)
- Get buy-in from the artist early on about best practices, archiving, “archive as a palette”. Demonstrating how archiving can help the artists production workflow, can get her on board with best practices. (Jeanine St. Germain)
- Take the tedious part of archiving out of artists hands, off their shoulders, so they can make work and not have to think about it. (Richard Rinehart)
- Collaboration between lots of people – IT, conservators, libraries, etc., translation of systems necessary. i.e. disc imaging, how do the skills get disseminated to people who need them, artists often outside the process? (Mona Jimenez)
- Ensure how the standards get put into practice and used. Video is essentially scientific, so there’s always that aspect of standards. Early work in museums was about how do I get the IT person to understand this "I think a lot of that is being done." Need to make repositories open and available to people who are making work.
- Disc imaging as a standard for preservation. "How do those resources get disseminated?" Artists have traditionally been outside. "We have a bunch of skills and resources that need to be shared." Form collaborations? "Making sure whoever needs the information gets it." (Mona Jimenez)
- Artists cringe at the word “standards”. Our goal is to break the rules (as artists). We are slaves of the technology that is served to us. We are standardized. (Steina)
- Drawing inspiration from the medium. (Woody Vasulka)
- Understand what’s behind the work, two different types of standards – 1) make it reproductive, 2) defacto standards not defined, someone else’s problem to figure it out, “our objects are not everybody’s objects”. The essential element of archiving is understanding what to keep. Standards are helpful, but they are not rules. (Daniel Teruggi)
- What should I keep? There's some work done, project with UCLA and electronic music.
- Glenn Wharton, MOMA, digital repository OIAS, Archive Management, created Advisory committee, fits archive world, media art has different issues, created new system. DRMC. Drawing on ISO standard OAIS. Now in the library and archive "sphere." Archivemata, developed on OAIS. Difference between representation of information than representation in art. (Mark Hellar)
- "OAIS is useless." My fridge is an OAIS system. (Daniel Teruggi)
- Interoperability between systems – collaboration, how do want to be interoperable? Need standards for this. Standards are not rules, processes that allow you to understand something. (Mona Jimenez)
- Question of Access. It will be the key to funding. How do we then create user interfaces? Access as the key to finding for museum libraries archives. (Dale Kronkright)
- Difficulty to standardize creativity. (Fred Unterseer)
- There's no interest for an artist to figure out a problem rationally. (Woody Vasulka)



Role of the Artist

- How is the creative process influenced by archiving? Some artists are taking it into consideration and it's affecting the work. Some work was made to be ephemeral and artists were fine with that!
- Ephemeral sculptures made of chocolate. Archiving is a choice. Our society has to learn to forget. (Daniel Teruggi)
- Some cultures want it to die. New Zealand Maori artists comfortable with his work "dying." Began to play with the idea of trying to keep CRT monitors - if it's not precious to me why is it precious to you? (Jessie Ryker-Crawford)
- How do we interface the story around the art? (Sydney Davis)
- Hear from repository managers about what they want. Speak with estates and get a dialogue between repository managers and estates. (Janine St. Germain)
- Workshop – archivists would like to attend a workshop offered by museum about their workflow. Workflows/practices are very individualistic, how do we give artists an opportunity to understandable the life of a piece. (Elizabeth Ehrnst)
- Intersection of artist, archivist, museum, and involve the public in this and share this intersection. (Dale Kronkright)
- What are the parameters for this work moving forward?
- Artists who don't identify as artists wouldn't necessarily be interested in documentation "for artists". There's a community but it's "a secret community." (Woody Vasulka)
- How is the knowledge shared and adapted for different organizations of varying sizes and made accessible? Artists don't need standards. Need to free us from the form of knowledge. I need to know what are the parameters for this work going forward (or calculate when it will die). Can it be this big? Can it run on this code? (Richard Rinehart)
- I understand concern for not imposing rules on artist, but I'm asking for help. (Jean Constant)
- There's a lot of knowledge but it's not getting out there. (Richard Rinehart)
- It's the institutions responsibility to do this work, not the artist's. (Meredith Davidson)
- Artist's voice is more a part of the museum acquisition process now.
- Matters in Media Art project will release soon: acquisitions, loans, archiving website for video art; took 3 years to create. There are a lot options based on income and staffing. I think that's changing. The artist is coming to the museum for help, how can my work be exhibited? And I think that's okay. We know what the best practices are to digitize video.

Even digitizing a single channel video can be complex. Media arts is pioneering contemporary art conservation, capturing the artist's voice. Complex issues. (Martina Haidvogel)

- There is a need to be more vocal about what everyone is doing – not afraid to admit mistakes.
- Preservation metadata available. (Daniel Teruggi)

LUNCH BREAK



Give & Get

- Questions/comments from index cards (see “**Give & Get**” section):
 - Denver Art Museum model of archiving is a good model.
 - Vasulka Archives, case study, best practices, networked archive relationships, necessary redundancies, open access.
 - Make connections, scout artists, hear presentations and best practices.
 - Creator/archivist relationship, relaying the importance of documentation for students, education and outreach.
 - Digital forensics work, ethical and legal issues with archiving vs. conservation.
 - Transfer of knowledge from experts to makers, space for archivists, conservationists, museum professionals to work together/lab.
 - Who is going to fund networked labs that bridge this work?
 - How to bridge the old and new collection management systems.
 - Learn what is needed for collectors. Learn where support is needed and what types of programs would make an impact right now.



Systems and Technologies

- Let's discuss technical matters. (Richard Lowenberg)
- Concern about work in electronic media with sculptural components – i.e. Alan Rath, Nam June Paik (replacement CRTs are needed). (Jill Desmond)
- As long as the code is accessible, it is possible to replicate the hardware at an expense. Potential for 3D printing in the future. (Dale Kronkright)
- There are many emulating communities, and we are buying machines constantly; put technical descriptions of the machines online, there are many losses. Maker space communities have potential but can't be "pushed," can't steer them. Cannibalization of 2" video decks, buying an entire machine for one part. Technical manuals and descriptions of machines. (Daniel Teruggi)
- AIC – electronic media list, post to the list. Also, C. T. Lui (NYC video vendor).
- "We're still in contact with the past"; people who worked with this technology are still alive. What happens when they die?
- Right now we have contact with people with the knowledge, however, we won't have that in 50 years. Many companies have kept knowledge unavailable.
- Kodak would not disclose the formula for their tapes.
- Even if theoretically technology can be reproduced can it be done for the small cultural heritage market and at an affordable cost. Does it have to be a CRT? (Richard Rinehart)
- Artists such as Christian Marclay have demanded that their work be exhibited on a CRT monitor. (Jill Desmond)
- Documenting less than best practices. Write down why you couldn't do what you wanted - practical limitations like budget or time. (Dale Kronkright)
- I Do Tech can supply CRTs. Discussing the problem with the artist. (Martina Haidvogel)

Documentation

- Documentation problem: Don't have time or funds to conserve all pieces in an exhibition. Document what you can't do. Can't replicate because of practical constraints.

- Discuss and collaborate on these problems with the artists that are living. Working with a sculptor who's opinion on conservation evolved over time seeing the work age. Think this could be a model for e media as well. (Dale Kronkright)
- Artist's intent changes too. Ongoing conversations so important.
- Anecdote about an artist not able to remember how the work was discussed. Memory can change too. (Mark Addison)
- The extent that institutional records and documentation are made public records. (Joey Heinen)
- Document everything you do every step of the way.
- "Are there other possible installations, or is this the only one?" (Mark Addison)
- Mozart left no performing instructions. There is a tradition of how to perform his work but it has probably changed over time. (Daniel Teruggi)
- Need TMS and museum database at this table. We need institutional practices so that these fields are in place for artist's intent. (Richard Rinehart)
- Having artist interview, installation iterations, components in the collection management. (Jill Desmond)
- And built in to the system not just attached to the record. (Richard Rinehart)



- Wiki annotation model used at Georgia O'Keeffe. Wikimedia format for installation documentation and maintaining records. Making those public. (Dale Kronkright)
- SF MOMA - Documentation applicable to all different installations, conceptual framework, all voices in the preservation process represented in different tabs, only becomes apparent when you install a work. Took a physical binder and created internal media wiki, to easily collect all the voices involved in the conservation of complex media: curators, contracts, conservators, installation reports. Things that only become clear when the work is installed. But then it lived in the binder. It wasn't easy to access. Now the binder is in the form of an internal wiki. (Martina Haidvogel)
- We implemented a wiki at SFMOMA based on the wikipedia software. Developing version, documenting at the point of acquisition and installation. Now expanding this model to include the point of creation. (Mark Hellar)
- Point of creation, acquisition and point of installation are moments to do this work, when there is funding and attention are there to create documentation. (Martina Haidvogel)

- Can't use this version of source code or net art in TMS. A fixed archive model doesn't work. (Mark Hellar)
- Software based art has to have versions tracking versions. Need a way to track them.
- Next version of TMS is more media art friendly. TMS finally getting around to adding duration as a field. (Richard Rinehart)
- What permits the work to be represented in a certain amount of time? (Daniel Teruggi)
- The benefit of Wikimedia, metadata attached to new entries. (Dale Kronkright)
- PBS / Corporation for Public Broadcasting.
- Nobody has a collection management system or template system that serves all different organizations. The existing collection management system is not a new problem. Archivist toolkit didn't include enough technical metadata for video. I think it's an issue with all audiovisual collections. I was just at a symposium where one person was suggesting just make a Google doc because that will be as useful as anything else. There's lots of people who use the SE templates. Let's keep things really simple while we're trying to figure out what we really need. (Mona Jimenez)
- Sharing - I did description, attaching to existing platform like media artifact atlas.
- Hack Day – conference that provides problem-solving tools. Hack Day at AMIA. Bringing archivists and programmers together. I have a bunch of metadata and stick it in some template, for example. How can we develop a tool that will automate some of this? The more we dump what we're working with together in one place, the better.
- AIC – electronic media group to advocate to the vendor community. This is not a new problem. The EMG group at AIC need to advocate to the vendors. (Richard Rinehart)
- QCTools is a good example how this can work. NEH is interested in helping fund initiatives like this. I agree it's not a new problem. (Mona Jimenez)
- Presented at AIC last year. Conservation Space – relational database, more accessible. (Martina Haidvogel)
- Development of Conservation Space. Needed to be more accessible and open to media. It's evolving very very slowly. (Dale Kronkright)
- Importance of keeping it simple and functional. (Sydney Davis)
- Be aware of how other people describe works. (Mona Jimenez)



Best Practices & Resources

- There's no such thing as "one tool to solve them all." In the time it takes to make a tool you'll need a different tool. Sometimes an excel sheet can be the best way. Homegrown solutions suite your needs better than any other but high cost of labor. Piction is trying to move away from object based description. (Elizabeth Ehrnst)
- Trend towards sharing data – simpler wiki style sharing formats that are more immediate, keeping it simple and functional, interoperability with standards, quality and consistency in data fields.
- It's more important to do something than to wait for the perfect tool. Just move forward. (Mona Jimenez)
- But be consistent. (Dale Kronkright)
- Matters in Media Art and Rhizome put out forms, Variable Media questionnaire.
- Matters in Media Art has description fields for software based art. (Mona Jimenez)
- National Endowment for the Humanities
- Archival Digital Storage, Archivum, tiers and check points of storage, Locks and Copies, and keep stuff safe, Stanford, intranet. Maintain each node. (Mark Hellar)
- LOCKSS at Stanford.
- Digital storage solution? Commercial opportunity. (Richard Rinehart)
- AV Preserve.com resources has tools and templates (tape and video, not new media). (Mona Jimenez)
- Opportunity here for consortium possibilities; shared resources. (Dale Kronkright)
- Approaching AAMG on these issues. (Richard Rinehart)
- Importance of taking the path of least resistance. (Dale Kronkright)

Access

- Can we talk about access? Check out: Worldwide Telescope, image-based interface to allow astronomers to post and share interface and public. Public interface where you can tour 3D model of the universe. There are permissions, you can't screw it up, but allows a lot of people to look at this data. Lots of metadata too, who added this information, when. Take standardized formats from image-based platforms. Good model for art historical information. Analogue, electronic and digital material. If we can conceive of this, which would help get funding. How does the public access things that aren't "spatial"?
- They're called exhibitions. (Richard Rinehart)
- People didn't want to make color catalogues because they were afraid people wouldn't come to the exhibits. The same thing with putting catalogues online. (Dale Kronkright)
- (Don Memoric?) tried to provide access from Timothy Leary's collection. How do we figure out what these things are? What are the boundaries, what are the behaviors? What kinds of access really makes sense? Joey's thesis and Cornell Library scanning of CDRoms. Doing surveys to determine who wants to research these materials. What kind of access do they need? (Mona Jimenez)
- Thinking about access to The Brotherhood, mostly as scholarly archive research material. Considering Second Life as a way to provide access. (Joey Heinen)

- Making collection records, artists interviews, source code publicly accessible. I started an open museum at Berkley, source code and working documents put up online after an exhibition. (Richard Rinehart)
- How open conservation records should be? Conservators don't want to admit to accidentally putting an elbow through a painting. Architects would never do that. It's part of the safety and use of the building. (Dale Kronkright)
- Using social media to show "the behind the scenes" of museums. (Mimi Roberts)
- Where are the boundaries and what are the behaviors? Law enforcement forensics. What information do you gain from the disc image? What kinds of access do you need to create for it to really make sense? Cornell Library scanning early multimedia works. Is someone more interested in the code or the artwork, etc.? What types of users are we looking forward to? AD Preserve paper on disc imaging. Transfer Collective exhibition at the New Museum. Library community is really trying to figure this out. (Mona Jimenez)
- Examine assumptions about our users.
- Documentation, schematics, videos, etc. is the material of access.
- Interactive museum experience.
- Digital access – open museum, collecting digital art, artist interviews, third party accessible, public code, source material for generative work, object of scholarly study, turn digital archive inside out. (Richard Rinehart)
- How open should conservation records be? Cooper Hewitt put their software piece online. (Dale Kronkright)
- Risk reducing work to a piece of software, artist's mythology is important. (Mark Hellar)
- Research is part of it, but is not the piece; doesn't diminish the work. (Dale Kronkright)
- Some artists would not share the code.
- What is your museum's philosophy on sharing?



Cultural Issues

- Laser scanning and photogrammetry at IAIA. Scanning objects in their native contemporary art collection. Problematic nature of tribal artifacts, so chose to work with contemporary art. Surprised by the conservation applications of 3D scanning. Tracking a crack or other damage. But we can't disseminate it. Need for an application that can share 3D models that people can interact with. We have this data but we don't know if it's possible to share it. (Jessie Ryker-Crawford)

- Interested in when these database systems are going to allow us to generate 3D data but don't know what we can do to disseminate them.
- Hieronymus Bosch Project – lots of imaging of every work, streaming partial image on screen, curtain viewer, see each of them. It's possible. Did as much imaging of 15-16th century artist's work as possible. Access application only loads the information you're looking at as you look at, don't have to load the enormous file as you go. (Dale Kronkright))
- Photometric stereo – keeping track of rate of change (like RTI). Photometrics studio. Keeping track of rate of change. I don't keep track, the computer keeps track.
- Potential for digital repatriation, members of the Zuni that are helping clarify what an object is, it's function. But other objects they don't want to be shared at all. (Jessie Ryker-Crawford)
- Australian Aboriginal and Maori museum. A process of evaluating what was appropriate to be used. They probably have some sort of data structure for that. (Mona Jimenez)
- Eco arts projects. Working with Canadian arctic First Nations who turn me on to Cyber Cartography project. How do you map place based on native song cycles? Other ways of knowing place and time. Cyber Cartography developer now at CU Boulder. Going to work with them on the Colorado Plateau. (Richard Lowenberg)
- Metadata that is more true to first people's modes of communication. (Jessie Ryker-Crawford)
- Edward Tufte reference – explore ways of visualizing information. Looking to design to improve user interface. (Sydney Davis)
- Oculus Rift artist used to present Argentinian genocide. Immersive experience to present historical information. Can be great but takes an incredible amount of knowledge. This is a field of lifelong learning. Importance of collaboration. (Richard Lowenberg)

Reception

At the end of the first day, a small reception was held in the Santa Fe Art Institute courtyard. Mayor Javier Gonzales stopped by to welcome the group to Santa Fe and to acknowledge their contribution to the community's growing new media and cultural development initiatives.



DAY 2 (June 26, 2015)

Next Steps

- Needs for shared information, make connections, follow-up with each other, continue the conversation. (Richard Lowenberg)
- Create a website, post resources, documentation from program, photos.
- What would help Richard Lowenberg with the follow-up is if a small group elected to efficiently create tools for everyone.
- Follow-up meeting next year.
- Is the goal really sharing resources or can we be more specific? We don't want to reinvent the wheel. (Talía Kosh)

Best Practices

- Bird's Eye view – how do creators, conservators, technical experts handle these issues?
- What are some of the major efforts and organizations that are doing this? How can we build on this shared knowledge?
- Always about the people and the artwork. SFMOMA formed Team Media, internal monthly meetings between museum stakeholders: curatorial, conservation, registrar, installation, and it has expanded to architecture and design. Workshop days where everyone has suggestions to the process and it's dynamic. Scientific and multi-disciplinary group really interacting with objects. (Mark Hellar)
- Sense in the room that there are people in museums/collections at different levels of working with the collection. Not sure where is the common ground and what people need in the room. (Mona Jimenez)
- Time-based media group meetings at the museum to discuss installations or new acquisitions. The Smithsonian has a list serve for any museum working with audio/visual materials. Hirshorn time based media group. Similar to SFMOMA. Smithsonian wide listserv for audiovisual questions. (Emily Nabsny)
- We are always digitizing. 100's of files for one piece. Protocol for long-term preservation for the composer. How does it become technologically independent? What should be preserved? Music should never to be identical, performances always different. There are levels of preservation/documentation. Certain complex works having independent technology. Describing very specifically how the media works, what is happening. For fixed media this is not the case, preserve specific work, but performances should have versions. Different iterations. (Daniel Teruggi)
- Technical question. Have you found a way to preserve the tapes without the oxide? For video tape, brand year analysis, i.e, Kodak from _ to _ was very difficult.
- "Restoration is not a science. It is an appreciation." Author's view changes through time. Brand and year analysis. Statistical information about the quality of the tape. Of course how the tape was kept will have strong impact regardless of tape stock. (Daniel Teruggi)
- Backup workflow, using LTO tape. Contract a separate company to do independent back up, not having the same group of people making the same mistakes.

- How are you storing them now? Migrate every 5 years to a new system. Linear Tape Open (LTO) (magnetic tape) high quality.
- Automated check sums.
- One drive LTO-6, \$2,000 (3 Terabytes) – good for smaller organizations.
- BAVC, Stand By, Mercer Media, non-profit preservation transferring formats, common standards storage for deterioration. IPI resource, etc. (Mona Jimenez)
- XFR transfer station at New Museum, transfer in a public space, Transfer Collective (NY), Video Databank (Chicago), Smithsonian Archives, UCLA. (Mona Jimenez)
- AIC, Electronic Media Interest Group.
- Just transfer! Have the knowledge of the people who were there.
- AMIA list of suppliers and vendors. AMIA resources on deterioration and degradation. IPI studies on deterioration. XFR transfer station, preservation being done in the public space. XFR transfer collective continuing that work. Similar initiatives at UCLA, video databank, and Smithsonian. Also APEX. "If you look on your own community you will find the decks." Get information from broader community. Schools and production companies will have that knowledge, have that experience. (Mona Jimenez)



Education

- We are losing the generation of technicians and engineers who know analog media. (Richard Lowenberg)
- Huge amount of labor. Need to love it. (Woody Vasulka)
- Finding the people in your community who are already doing it and collaborate with them. Bring the people together.
- Access the older community that knows the technology. I am noticing in some places there is a transfer of knowledge. Is that an issue? (Richard Lowenberg)
- Resource with documentation on calibrating analog decks. In multiple languages surprisingly finding younger technicians. Filmed an "operator" calibrating 5 different machines, it's online. (Daniel Teruggi)
- Have to put a deadline – 2025 – important to have this in mind. Analog audio/visual heritage will die if we don't address these in the next 10 years. (Daniel Teruggi)
- Need for a education program specifically for media arts. Need for a "meta-site" for resources specifically for media arts. (Richard Rinehart)
- Library of Congress has resources.
- NYU program, hands on video preservation, the new class of people who care about this.

- Recently hired a registrar, museums studies programs are not equipping students with media arts preservation, born digital content. More mentorship programs. Library programs are ahead. There is a need here! (Richard Rinehart)
- Is there a meta site for preservation resources?
- IMAP site, EAI Guide (case studies), Electronic Media Interests Group (Mona Jimenez)
- Presell (sp?) Center in Europe. (Daniel Teruggi)
- What about the cloud? (Fred Unterseer)
- I don't know any archivist that is storing things in the cloud. (Daniel Teruggi)
- NYU fellowship program – National Digital Stewardship residency, Library of Congress (5 Boston, 5 NY, 5 DC), cohort group at different locations, identify shared resources and solutions and a blog. (Joey Heinen)
- WGBH spinoff, public broadcasting archive management, public broadcasting residents, placing recent graduates in the public broadcasting stations. (Joey Heinen)
- Idea: How might we develop a fellowship program that would meet the needs of our organization or community. (Mona Jimenez)



Partnering

- Let's talk about how this relates to smaller organizations or NM/Colorado organizations. (Richard Lowenberg)
- Worked with digital libraries, applied to IMLS for grants to create a digital repository, Partnering a lot, which leads to funding. (Daniel Kosharek)
- Also looking to grants to help build collaboration. Pulling resources together through "archive grid". Allowing them to focus on specific skills, what they're good at. Having archival material around actually stimulates visits to the archives. (Elizabeth Ehrnst)
- Expense of archival work. (Woody Vasulka)
- O'Keeffe also relies on library relationships, education outreach and this leads to funding. We have limited resources and connect with tools at other organizations. There have been some discussions and thinking of museum's collection in the larger context of 20th

century American Art Beginning to think about this federated approach. Identify strengths in 20th century art with redundancies. Curators working together on research, preservation, access, exhibitions for dispersed collection, each institution with its own strengths and weaknesses. It's a good thing that O'Keeffe's are all over. Seeking long-term funding for public portals, dispersing responsibility and encouraging collaborations between institutions. (Dale Kronkright)

- The Super Hero (Getty, Kress, etc.) model is ending. Museums are built to raise money continually. (Dale Kronkright)
- There are minor super heroes still – alumni bases of committed institutions. Pool funds on a smaller level. Importance of development department, local support and funding. An alumni association or something similar. (Jeanine St. Germain)
- Consortium project – 10-20 museums in California, was successful. Collaboration between museums, creating a world catalog of museums, or a Europeana for America. (Richard Rinehart)
- Instead of trying to compete against each other. Footprint is the history of ideas. Major exhibition/projects, etc. organized together.
- Community Archiving initiative – bring together archiving professionals with those new to it. Exchanging material and skills. Bring people together to help catalog or inventory. Build intellectual and physical control over collections. Created a guide for community archiving workshop. "Playback" bringing people around actual work, focusing on specific issues. Proposing initiatives of getting stakeholders around artifacts like the one in her recent book. Signal Culture in New York, residency program. (Mona Jimenez)
- Bringing together artists, technologists, registrars, conservators, etc. around a certain issue or a work (Playback, TechArt Gallery, SFMOMA), AIC produced a series articles afterwards. Get in a room with a work and computers, and debate issues.
- David Dunn and others exhibition with tools and new interfaces.
- Signal Culture – residencies for artists and research residencies is a good model.
- Woody talked about his work on an online server, NeoFinder.
- DOCAM project – Daniel Langlois Foundation, 5-year Canadian research project.
- Important to consider the artist's point of view and their desire to share their work completely. Anyone know of an artist who has done this well?
- Chicago Video Data Bank does it for artists.
- Rhizome does this to some degree. They take artists submission and are working with the NEH to develop description for electronic media. What would Rhizome say if Woody came to them with his whole collection? (Richard Rinehart)
- Vasulkas have given their work away over time. There are at least 17 websites with Vasulka material. Sites are not coordinated and there isn't long-term preservation of the works. Information as property vs. information as a common good. Making information a commodity is antithetical to the nature of information. (Richard Lowenberg)
- Who is responsible for the material? (Daniel Teruggi)
- There is pressure to put all information online in a very particular way, particular language, by the institutions.
- Trend of artists to supply as much information and access as possible. (Jean Constant)
- Unique creative systems – The Brotherhood interactive installation by the Vasulkas is a good example of this. Jeffrey Scheier would be a good person to talk to about this, and he will be here this afternoon.

- Is archiving place-based or in the clouds? Challenge of materials stored in multiple archives. (Woody Vasulka)
- Systems that point to each other is important, there isn't one perfect place where it can all live. There is need for a federated approach, linking collections. (Joey Heinen)



Systems

- Importance of preserving complex systems of machinery and technology. (Richard Lowenberg)
- Experimental Television Center archive, now at Cornell. (Joey Heinen)
- Ralph Hocking, willing to consider installing the systems described in the etc archive, but has not made a partnership yet. (Mona Jimenez)
- Need repository of systems and parts.
- Wyndham Hannaway (Boulder, CO) works primarily in film, both collector and knowledge base, and knows how to operate technology from the past 100 years. His collection of machines is in very good condition. Wyndham able to operate all. Needs a place to deposit them, donate them. He will need to find an apprentice, some way to "replicate Wyndham." (Mark Addison/ Richard Lowenberg)
- Partnerships between people like Wyndham to work with students.
- Media Archeology Lab – Laurie Anderson working with students on her projects.
- Need someone to promote an artist archive for it to have value too. Make the public aware of the need. (Mark Addison)
- Potential for academia to help crowd source efforts in engineering, etc. (Joey Heinen)

Funding

- Potential NEH grant funding for preservation efforts like these. (Joanna Raczynska)
- NEH, Preservation of Electronic Media, call open now.
- Identifying projects and getting funding doesn't work. What does work? A group of organizations is going to iterate on the big questions collaboratively across institutions, commanding a tremendous profile, dividing funding between major museums to for sustained, specific efforts. (Dale Kronkright)
- One organization has experience in cataloguing code, one organization has experience in hardware, etc. pull together to create social impact and therefore getting funding. (Dale Kronkright)

- Is this realistic or possible within the bureaucracy?
- It is challenging.
- Interesting about what Joey did on The Brotherhood. He really stressed that Steina and Woody with their partners were innovating technology. The context makes a difference for people who are building tools. It's not just about the artwork but innovating the technology that speaks to connecting artworks with other technological innovation. Frame the work in a different way. Contextualize media art in the evolution of technology. Significance of technological innovation. Social relevance and impact of innovation in technology. Exhibitions on conservation. Need for information on what computers do, role of technology in society. (Mona Jimenez)
- Institutions pushing the digital work aside and more needs to be operationalized. How do we make it cost effective?
- Social relevance is an issue. How do we make projects socially relevant to get funding?
- How can we be socially relevant and make money? (Mark Addison)
- Educational participation has important social relevance, and should be key components of projects. (Jean Constant)
- In defense of limited term projects. Five year projects aren't necessarily duplicating efforts. But, recognizing need to operationalize media art. Grant funding is indicative of museums not adopting institutional practices to preserve media art. (Richard Rinehart)
- Hybrid funding both nonprofit and for profit. Interaction of these different fields is very important. (Talia Kosh)

Legal Issues

- Legal and rights issues. Interest moving away from ownership and more about access. What are the legal issues you are concerned with? What do you think of Creative Commons? It's moving away from ownership to licensing. Good marketing and good for disseminating. We are not really moving away from ownership, we are just transferring individual ownership to corporate ownership. (Talia Kosh)
- Moving toward licensing in terms of distribution but often an individual/corporation still owns the work. (Richard Rinehart)
- Creative Commons as a "weapon" against traditional legal ownership of intellectual property. (Jean Constant)
- LC3, beneficial corporation. (Talia Kosh)
- A new IRS corporate designation, attempting to make an impact on a social goal. Still a for profit company. Corp. that is making money doing social good. Not yet legal in NM. (Dale Kronkright)



LUNCH BREAK

No Simple Answers: Evolving Challenges and Opportunities

- New media preservation/conservation and other creative forms
- Is media art still on the margins?
- Is new media a part of the mainstream or still on the fringe? People are exhibiting it, writing about it, not enough people are collecting it.
- It's creeping in...there is no ZKM in the U.S. It has a trajectory. The Denver Art Museum is significantly invested. There's very positive public feedback. It's accessible and relatable. Collectors are getting comfortable. Accessibility to electronic and digital media to the public. Media literacy in our society. Rate of deterioration is faster. Readiness to new media art. (Jill Desmond)
- The Hirshhorn is also very behind electronic media, it's no longer sequestered or on the fringes. (Emily Nabasny)
- We have a media culture. It's pervasive throughout our society. There's a growing audience of this, cites success of Currents. (Richard Lowenberg)
- What does that mean for memory organizations? What are the problems facing institutions? (Dale Kronkright)
- Our conversations here have been helpful and informative but diffuse. There's consensus on nothing. Tomorrow we have a "focus group" I'm curious to hear what our audience is interested in. (Richard Rinehart)
- Explain the challenges of preserving media art to the public. Lack of understanding of the complexities of this process. (Martina Haidvogel)
- Importance of makers understanding these challenges as well. (Mona Jimenez)
- What are the challenges to new media art? Short life cycle. Challenges and examples. Tape is unstable. Over time we might not know. Case study: take one artwork from the Currents exhibition.
- Higher education + new work force.
- We should form questions for artists.
- Provide them with a summary of last 2 days.

As the Friday afternoon session ended, sub-groups formed to develop topics and prepare presentations for the Saturday morning public Symposium.



New (+ Old) Media: Restoration, Preservation, Archiving & Access

Participants

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Tom Colley, Collection Manager, Video Data Bank, School of the Art Institute of Chicago

Eddy Colloton, Student, NYU MIAP and Digital Media Intern, Denver Art Museum

Jean Constant, Digital Media Artist, Santa Fe

Meredith Davidson, Contemporary Arts Curator, NM History Museum

Sydney Davis, Digital Audio and Media Artist, Santa Fe

Jill Desmond, Associate Director of Exhibition and Collection Services, Denver Art Museum

Douglas Dreishpoon, Chief Curator Emeritus, Albright-Knox Art Gallery, Buffalo, NY

Elizabeth Ehrnst, Digital Librarian + Archivist, Georgia O'Keefe Museum

Martina Haidvogel, Advanced Fellow, Conservation of Contemporary Art, SFMOMA

Joey Heinen, Digital Preservation Resident at Harvard Library

Mark Hellar, Hellar Studios, San Francisco

Mona Jimenez, Associate Director, MIAP, Cinema Studies, NYU

Bryan Konefsky, President, Basement Films, Albuquerque

Talia Kosh, The Bennett Law Group; New Mexico Lawyers for the Arts; CURRENTS Board

Daniel Kosharek, Photo Curator, Palace of the Governors Photo Archives, NM History Mus.

Dale Kronkright, Head of Conservation, Georgia O'Keefe Museum

Tom Martinelli, Painter, Coordinator, Holt-Smithson Estate

Emily C. Nabsny, Audiovisual Preservationist, Smithsonian, Hirshhorn Museum, DC

Joanna Raczynska, Assistant Film Curator, National Gallery, D.C.

Frank Ragano, Co-Executive Director, Parallel Studios / CURRENTS

Richard Rinehart, Bucknell U., co-author, Re-Collection: Art, New Media and Social Memory

Mimi Roberts, Director for Media Projects, NM Department of Cultural Affairs

Jessie Ryker-Crawford, Director, Museum Studies, Institute of American Indian Arts, Santa Fe

Janine St. Germain, Independent Arts Archivist, NY

Steina, Media Artist, Santa Fe

David Stout, Artist, Initiative for Advanced Research in Technology & the Arts, U. of North TX

Daniel Teruggi, Composer, Head of Research, Ina (French AV Institute), Paris

Fred Unterseer, Holographer, Santa Fe

Woody Vasulka, Media Artist, Santa Fe

Gene Youngblood, Author, Expanded Cinema, Santa Fe

Richard Lowenberg, Program Organizer; Dir., 1st-Mile Institute; CURRENTS Board President

New (+ Old) Media: Restoration, Preservation, Archiving & Access

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NEA, Media Arts Program, www.arts.gov

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Electronic Arts Intermix, NYC www.eai.org

Rhizome (@ New Museum), Digital Conservation, <http://rhizome.org>

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Pam and Dick Kramlich, Kramlich Collection, New Art Trust, Napa, CA

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